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View upcoming virtual lectures, concerts, classes and other events at the Library of Congress.

WWW.LOC.GOV/EVENTS



Fenella France explains the work of the Preservation Research and Testing Division during a Feb. 18, 2020, event marking the division's 50th anniversary.

Shawn Miller

Reopening Safely Based on Preservation Science

Staff are participating in a study to determine best practices for handling collections.

BY WENDI A. MALONEY

For more than a year, hand sanitizers have been big news. “The Best Hand Sanitizers to Buy Right Now,” “You Might Be Buying a Hand Sanitizer That Won’t Work for Coronavirus” and “11 Best Hand Sanitizer Products” – these are just a few of the anxiety-producing headlines touting sanitizers as a remedy against the virus that causes COVID-19.

So, by now, we’re all well versed in their protective properties as well as their downside for our hands: dry, itchy skin. But what about all the things we touch? Are they

affected, too? It turns out they are – or at least some of them.

This month, the Preservation Research and Testing Division (PRTD) released preliminary results from its ongoing study on the effects of hand sanitizers on library papers and parchment. After eight weeks of accelerated aging, the study found, discoloration and fluorescent residue were visible on papers and parchment touched using hand sanitizer.

“Based on these initial findings, the use of hand sanitizers before handling collection materials does

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DONATED TIME

The following employees have satisfied eligibility requirements to receive leave donations from other staff members. Contact Lisa Davis at ldav@loc.gov.

Lynette Brown
Bailey Cahall

William Mahannah
Eric Wolfson

COVID-19 UPDATE

The Health Services Division (HSD) recognizes that some employees have received COVID-19 vaccines. However, the Library is not modifying its on-site health and safety protocols based on the vaccination status of employees. Library staff are required to wear masks when they are in shared workspaces where at least six feet of distance cannot be maintained and in common areas, hallways and restrooms.

HSD continues to monitor Library staff members with symptoms, clinical diagnoses or positive test results associated with COVID-19. On April 8, HSD announced that it had received eight new reports of symptoms of COVID-19 or confirmed cases since its previous COVID-19 announcement on March 25. Most employees reporting symptoms are not diagnosed with COVID-19, but, out of caution, the Library is monitoring all reports of symptoms.

More information on the Library's pandemic response: <https://go.usa.gov/xdvV5> (intranet) or <https://go.usa.gov/xdvVQ> (public-facing staff webpage)

UPDATED EMERGENCY GUIDANCE

With enhanced security measures still in place on Capitol Hill, the Security and Emergency Preparedness Directorate has made available [phase 2.2 of its protective action guidance for responding to building emergencies](#). Now that perimeter fencing around the Library has been removed, the updated guidance includes detailed information about social distancing during emergencies, evacuation assembly areas and best ways to contact emergency services.

Staff are encouraged to download the Joint Emergency Mass Notification System (JEMNS) mobile app on their personal devices and register to receive text alerts. For instructions and more information, go to <https://go.usa.gov/xs5mR>. Learn more about the Library's emergency guidance: <https://go.usa.gov/xs5mQ>.

Questions? Call (202) 707-8708 or send an email message to epp@loc.gov.

REMINDER: SEXUAL HARASSMENT SURVEY

The Office of the Inspector General (OIG) is conducting a survey on sexual harassment at the Library and encourages all staff to participate. The OIG emailed a link to the survey to each Library employee on April 7. The deadline to complete the survey is April 21. It seeks to understand how well sexual harassment and other related unwelcome behaviors are prevented and addressed. Survey responses are anonymous.

Questions? Contact the OIG at OIGsurvey@loc.gov.

GAZETTE

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MISSION OF THE LIBRARY OF CONGRESS

The Library's central mission is to engage, inspire and inform Congress and the American people with a universal and enduring source of knowledge and creativity.

ABOUT THE GAZETTE

An official publication of the Library of Congress, The Gazette encourages Library managers and staff to submit articles and photographs of general interest. Submissions will be edited to convey the most necessary information.

Back issues of The Gazette in print are available in the Communications Office, LM 143. Electronic archived issues and a color PDF file of the current issue are available online at loc.gov/staff/gazette.

GAZETTE WELCOMES LETTERS FROM STAFF

Staff members are invited to use the Gazette for lively and thoughtful debate relevant to Library issues. Letters must be signed by the author, whose place of work and telephone extension should be included so we can verify authorship. If a letter calls for management response, an explanation of a policy or actions or clarification of fact, we will ask for management response.—Ed.

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GAZETTE DEADLINES

The deadline for editorial copy for the April 30 Gazette is Wednesday, April 21.

Email editorial copy and letters to the editor to mhartsell@loc.gov and wmal@loc.gov.

To promote events through the Library's online calendar (www.loc.gov/loc/events) and the Gazette Calendar, email event and contact information to calendar@loc.gov by 9 a.m. Monday of the week of publication.

Boxed announcements should be submitted electronically (text files) by 9 a.m. Monday the week of publication to mhartsell@loc.gov and wmal@loc.gov.

Centuries-Old Calligraphy Added to Digital Collections

Scholars everywhere can now study one-of-a-kind resources from the Library.

BY ANCHI HOH

The African and Middle Eastern Division (AMED) has released rare handwritten treasures from its collections online. “Selections of Arabic, Persian and Ottoman Calligraphy” (<https://go.usa.gov/xszPE>) launched on the Library’s website in February.

Calligraphy is both an exquisite art and a practical skill that requires years of training. Closely associated with the Islamic faith and used heavily in Qur’an manuscripts, calligraphy is a tradition in Arabic-, Persian- and Turkish-speaking lands, where a variety of writing styles developed and evolved over centuries. It is also an integral part of the Arab, Persian and Turkish cultures and civilizations and is manifested through art, architecture, literature, culture and education.

“Through exquisitely illuminated panels, albums and poems, this collection speaks to a thousand years of the Arabic-script calligraphic tradition,” Lanisa Kitchiner, AMED’s chief, said. “We invite everyone to come and discover, study and understand more about this unique collection and use it in creative ways to bring to life this precious art form.”

The Library’s calligraphy collection was developed through two sources. The vast majority of sheets were acquired during the late 1920s and early 1930s, mainly from Kirkor Minassian, a renowned dealer in fine Islamic and Near Eastern art and manuscripts. A second group of items was purchased in the 1990s through the Library’s Islamabad office, which received permission from the government of Pakistan to acquire and export calligraphic materials



These Qur’anic verses created between the 11th and 13th centuries are a highlight of the newly launched collection.

belonging to a Pakistani citizen. Other disparate pieces came to the Library from various sources throughout the 20th century.

Written in Arabic, Persian and Ottoman Turkish on parchment, paper and papyri, AMED’s Arabic-script calligraphy consists of approximately 355 items, the oldest dating back to the 9th and 10th centuries. The digital collection highlights 273 items, most of which were executed on paper with some Qur’anic fragments on parchment.

The collection reflects a number of unique calligraphic traditions, including Safavid (1501-1722) practices of divination by the Qur’an, calligraphic gifts related to the Persian New Year and Qajar (1785-1925) monochromatic fin-gernail calligraphy. These traditions remain poorly understood according to Islamic art professor Christiane Gruber, who researched and wrote the essays and entries for the online collection.

“I am excited that this rich repository of calligraphy is now available for researchers from all over the world to access, to study and to contribute to knowledge about them,” Kitchiner said.

A selection from the collection debuted in 2006 on the Library’s

legacy Global Gateway portal, an initiative to present international cultures and civilizations digitally. The newly launched collection is part of the Library’s effort to extract contents from legacy portals for use in a modern digital environment that promotes broad content sharing.

In collaboration with the Digital Content Management and Services Division, which is charged with this endeavor, AMED’s Near East Section worked on metadata and conversion issues, enhanced images of the calligraphy sheets, edited the essays and improved subject headings and language coding for items, said Joan Weeks, the section’s head.

With these enhancements, the new presentation enables displays of items by location of origination, name of calligrapher, year and other filters. Expert resources and essays explore Ottoman and Persian calligraphic styles, Qur’anic calligraphic fragments and some of the Library’s notable Arabic script calligraphy sheets and illuminations. A video on calligraphy, “A Scribe with a View: The Construction of Knowledge in the Ancient and Islamic Medieval Periods” (<https://go.usa.gov/xszyN>), also accompanies the presentation. ■

Newspaper Navigator Wins Digital Humanities Award

Newspaper Navigator (<https://go.usa.gov/xsfpv>), an application created by Ben Lee during his time as a 2020 Library innovator-in-residence, has received a Digital Humanities Award in the “Best DH Dataset” category. Overseen by an international committee of volunteers from the world of digital humanities and voted on by the public, the awards recognize outstanding new contributions to the field.

Lee applied a machine-learning algorithm to extract a dataset of

visual imagery from more than 16 million newspaper pages in the Library’s Chronicling America collection. Newspaper Navigator includes photographs, illustrations, comics, maps and advertisements along with corresponding headlines and captions. LC Labs, the Office of the Chief Information Officer and Library Services facilitated the project.

Newspaper Navigator is available to download both in bulk form and in smaller, prepackaged image collections sorted by year. It is one

of the largest datasets the Library has ever made available online for public use.

Over the past year, Lee and LC Labs have shared the code and methodology behind Newspaper Navigator with the digital humanities community in the hope that Lee’s technology can be repurposed for other digitized newspaper datasets or visually diverse digital collections, especially by institutions without extensive experience in machine learning. ■

Webinar Series Planned for Preservation Week

Preservation Week runs from April 25 to May 1 this year. The annual nationwide observance promotes the role of libraries in preserving valuable collections – manuscripts, photographs, maps, film, audio recordings and more. Because Library of Congress buildings are now closed to the public, all Preservation Week events will be held online this year. [Register here](#) to attend any of the events below.

Preservation Meets Public Health **April 26, 11 a.m.**

Jacob Nadal, director for preservation, will explain how Library staff used information from the REALM project (see the story on page 1 of this Gazette issue) in conjunction with public health guidance to develop safe operations for activities involving the Library’s collections.

Restarting Operations During the Pandemic **April 27, 11 a.m.**

Matthew Martin, director of the Operations Division, will speak about how the Preservation Directorate’s Collections Management Division prioritized its workload during the pandemic in light of limited on-site staff and the need to re-evaluate processes and procedures to ensure safety and efficiency.

Focus on Scientific Reference Samples **April 28, 11 a.m.**

Fenella France, chief of the Preservation Research and Testing Division, will discuss how having physical reference samples that replicate materials in the Library’s collections allows staff to conduct destructive testing and accelerated aging, assess treatments and use the results to correlate physical and noninvasive test methods.

Training the Next Generation **April 29, 11 a.m.**

Adrija Henley, chief of the Preservation Services Division, will talk about her division’s hosting of three librarians-in-residence since 2018 and introduce librarians-in-residence, who will share their experiences.

Peek Inside the Lab **April 30, 11 a.m.**

In the first of two presentations, Alan Haley, a senior preservation specialist, and Dan Paterson, a senior conservator, will discuss the conservation treatment and digitization of the “Yongle Dadian,” a 16th-century manuscript encyclopedia comprising 11,095 volumes that record Chinese life and culture.

In the second presentation, Leslie Long, a senior preservation specialist in the Conservation Division, will focus on three important figures from the so-called golden age of American book design – John Feely, Sarah Wyman Whitman and Margaret Armstrong. They worked between 1870 and 1920, during a period characterized by books published with beautiful covers for everyday buyers. ■

YOUR HELP IS NEEDED: COPYRIGHT PUBLIC RECORDS SYSTEM

The Office of the Chief Information Officer is conducting a usability study of the new Copyright Public Records System and needs help from staff. Interested employees are invited to explore the system and give feedback on its capabilities and functionality to inform ongoing improvements and user-experience enhancements. The study takes about 20 minutes to complete and is available until April 23. It uses screen and audio recording functions to capture reactions. To learn more and sign up, go to [Copyright Public Records System Usability Study](#).



Andrew Davis

Andrew Davis

Andrew Davis is a chemist in the Preservation Research and Testing Division.

Tell us a little about your background.

I grew up in Virginia Beach, where I sold snow cones on the boardwalk in the summer and enjoyed all the excellent benefits of living in a tourist town during the off-season. I studied chemistry and materials science at the University of Virginia, then spent five years in Amherst, Massachusetts, getting my Ph.D. in polymer science and engineering from the University of Massachusetts Amherst. After that, I moved to Saint Paul, Minnesota, and worked in the central research labs at 3M.

What brought you to the Library, and what do you do?

My work during my Ph.D. and at 3M focused on using light to cause chemical change in different materials, coatings and adhe-

sives. It turns out that there's a lot of overlap between that kind of chemistry and the chemistry of preservation science, especially at the Library. After a while in Minnesota, my wife and I were looking to move back closer to our families, and the time and place lined up perfectly as the Library was hiring another chemist.

I typically work in the Preservation Research and Testing Division's (PRTD) labs in the Madison Building. I run physical and chemical experiments to determine things like the tensile strength of reels of audiotape or the size of cellulose molecules in paper, particularly as they relate to preservation needs or treatment efforts. Those tests usually rely on PRTD's collection of reference materials acquired for the purpose of destructive testing, because we obviously don't want to be dissolving collection objects. Since those materials are representative of Library's collection, we can then use the experiments to inform the preservation of physical collections.

My background in light and oxygen chemistry has also led me to work a lot with the anoxic display encasements for the 1507 Waldseemüller world map and the 1783 Abel Buell U.S. map in the Jefferson Building. I keep a daily eye on sensor data for things like oxygen and pressure levels to ensure the documents are protected during display. I also analyze the interplay between environmental conditions of the building and the display cases to understand how external conditions affect the sealed display enclosures. The encasement technology is nearly as interesting as the maps themselves!

What are some of your standout projects?

This last year is obviously noteworthy, since I've been working mostly from home. I've been doing a lot of statistical analyses of our lab's technical data sets. Finding correlations between two variables isn't hard – for example, how paper's tear resistance is affected by acidity (pH). But how does tear

resistance change as a function of lots of variables combined – age, print location, pH, discoloration? The real world is complex, so I've been applying more complicated multivariate models to better capture those complexities. Fortunately, we have plenty of historical and current data to explore.

But I do miss working in the labs. I recently worked with colleagues at the National Audio-Visual Conservation Center to understand the chemical properties of new lubrication treatments to enable the playback of squealing audiotapes in the collection that were challenging to play. I was doing some careful accelerated aging studies of other audiotapes before the pandemic necessitated leaving those on the bench last year.

I also really enjoy working with interns in our labs. I've regularly mentored high school students through an American Chemical Society program that provides scientific internships for economically disadvantaged students, who are typically also from groups underrepresented in the sciences. It lets them draw real-world connections between textbook science and the practical science at the Library. The publication Chemical & Engineering News created a video of some of those projects.

What do you enjoy doing outside work?

We had a daughter recently – she's 10 months old now! So, my time these days involves trying to keep up with her increasingly Mad Max-style of rollicking around, which is fun and exhausting.

When it's not a pandemic, I'm a big fan of flat-track roller derby (cheering, not playing). I would regularly go to watch Charm City Roller Derby. My wife and I and our friends have attended four of the last five international championships.

What is something your co-workers may not know about you?

I'm a bit of a tea snob, with a particular soft spot for Fujian province oolongs, especially Shui Xian. ■

PRESERVATION, CONTINUED FROM 1

introduce a measurable risk of transferring residue that fluoresces and often seems to discolor with age,” Fenella France, PRTD’s chief said.

The hand sanitizer study connects to a larger endeavor the Library and PRTD have been participating in since last spring. The REopening Archives, Libraries and Museums (REALM) project brings together cultural heritage institutions with scientists at Battelle Memorial Institute to determine best practices to protect people from COVID-19 as institutions reopen doors they closed during the pandemic.

Mark Sweeney, principal deputy Librarian of Congress, is on REALM’s executive steering committee, and France and Jacob Nadal, director of preservation at the Library, are members of the project’s scientific working group.

REALM started in May 2020 and is set to conclude this September. In the first phase, participants began testing how long SARS-CoV-2, the virus that causes COVID-19, survives on library materials that circulate to patrons – hard and soft book covers, pages within books, DVD and CD covers. Testing involved applying tiny amounts of a virulent form of the virus to materials as they lay flat, keeping them at standard room temperature and humidity and counting the days and hours until the virus was no longer detectable.

In the second phase of the project, testing expanded to more materials and workflows across institutions large and small, including public libraries. How long does the virus survive on stacked books as opposed to single sample pages, project participants asked? How long does it last on plastic storage containers or acrylic display cases?

While participants pursued these and other questions, REALM released findings on its website (www.oclc.org/realm), along with resources to help institutions

decide on safe practices for their communities. Additional laboratory testing is taking place during a third phase of the project, as REALM explores other COVID-related public health topics that affect libraries, such as vaccination and virus variants.

For the hand sanitizer study, PRTD staff scientists applied three common sanitizers to their hands, let them dry as recommended and pressed their thumbs on test materials. They did the same after washing their hands with soap and water. Then, they conducted accelerated aging of the materials to replicate what might happen over time.

While discoloration and fluorescent residue appeared on materials affected by hand sanitizers, no such effects were present from washed hands. Although further testing will occur after 16 weeks of aging, these preliminary results suggest that “freshly washed hands are preferable,” France said.

Nadal said the Library’s contri-

butions to REALM include raising one-of-a-kind questions. As an example, he pointed to testing of materials distributed by the National Library Service for the Blind and Print Disabled (NLS) – braille books and USB cartridges containing audiobooks.

“That was a community that would not probably have had an advocate for it if the Library had not been there specifically,” Nadal said.

NLS staff forwarded samples to REALM, including of the containers used to mail books and cartridges. NLS materials are circulated through a network of cooperating libraries across the country.

“The network library staff was rightly apprehensive in handling material returned from patrons at the onset of the pandemic,” Michael Katzmann of NLS said.

Initially, NLS shared estimates from the Centers for Disease Control and Prevention about the viability of the virus on surfaces. But as

REMEMBERING PRINCE PHILIP



Prince Philip, the Duke of Edinburgh and husband of Queen Elizabeth II of the United Kingdom, died on April 9 at Windsor Castle in England. In this photograph from Nov. 5, 1951, Philip (center) views the Declaration of Independence and the U.S. Constitution, displayed in the Jefferson Building’s Great Hall, during a visit to the U.S. with his wife, who at the time was Princess Elizabeth. She became queen in 1953 following the death of her father, King George VI.

Library of Congress Archive

REALM findings became available, NLS passed along more precise guidance – and ease of mind. “The short answer is that the virus can survive around three to five days on common library materials,” Nadal said. NLS materials are typically in transit for that amount of time, alleviating concerns about safe handling.

Nadal said the Library is especially well positioned to support REALM because of the diverse scientific expertise France has built up in PRTD since she joined the Library 15 years ago. The division has six Ph.D. scientists, including France, whose background is in textile science. Others have backgrounds in chemistry, engineering, physics or forensics. Coincidentally, one staff member in PRTD also has experience in virology.

“It’s been really successful bringing in people who have a background in science,” France said. “Then, we start to add the layers of understanding of different materials and treatments and the impact of the environment.”

Andrew Forsberg is a preservation researcher working in PRTD through a grant from the Andrew W. Mellon Foundation. For REALM, he analyzed plastics found on the covers of children’s board books. Using a noninvasive method that relies on infrared spectroscopy, he tested more than 60 books from the Library’s collections and found that cover coatings were mainly acrylic mixed with other plastics, such as polypropylene and polyester.

“It was important to know because plastic surfaces are one of the types of materials on which the virus stays viable for longer,” France said. “If anything is going to go in someone’s mouth, it’s going to be a children’s board book.”

As it turns out, the virus is no longer detectable on board book covers after four days, REALM determined.

Like Forsberg’s study of book covers, much research carried out by PRTD is noninvasive or minimally invasive, but not all of it is. Testing

the effects of hand sanitizers, for example, required damaging actual papers and parchment – although not any from the Library’s holdings.

The Preservation Directorate acquired the William J. Barrow collection in the 1970s. A self-trained chemist, Barrow built up a library of more than 1,000 books dating from 1507 to 1899, all for one purpose: to conduct studies on them using destructive techniques. France has expanded this scientific reference sample collection to include CDs, DVDs, glass, magnetic tape, fibers, fabrics and other materials present in the Library’s holdings. The hand sanitizer study used papers and parchments from among the reference samples.

The Preservation Directorate is sharing findings from REALM and its own studies within the Library and, in consultation with the Health Services Division, recommendations have already been implemented.

For example, during expanded telework, the Collections Management Division has prepared thousands of new books for catalogers to work on from home. They schedule a time to pick them up and return them to minimize contact with others. And, after they drop books off, no one else touches them for 72 hours.

“Although different materials may have different decay curves, by 72 hours, the major risk is substantially alleviated for everything. We see a huge drop-off in the presence of the virus,” Nadal said.

“The Library has a lot to be proud of in its response to COVID,” he concluded. “Our staff’s incredible knowledge coupled with our distinctive collections, like our scientific reference samples and materials from the NLS network, came together to help us achieve a year of remarkably safe operations.” ■

WOMEN WHO LEAD AT THE LIBRARY

April 22, 1 to 2 p.m.

“Women Who Lead at the Library: A Conversation with Lanisa Kitchiner and Kate Zwaard” will take place online on April 22 from 1 to 2 p.m. It is the first event of the Library of Congress Professional Association’s new Women’s Forum for Growth and Networking (<https://go.usa.gov/xHcq4>), launched to support women’s careers and foster a sense of community. The forum holds monthly planning meetings at 2 p.m. on the fourth Wednesday of every month. All are welcome.

[Click](#) to participate in the April 22 event. [Click](#) to participate in monthly planning meetings.

Questions? Contact Jocelyn McNamara, jmcnamara@loc.gov or Stacey Devine, sdev@loc.gov.

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